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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,277	12/05/2000	Gary Gao	24598A	6965
22889	7590	04/19/2005	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/730,277

Applicant(s)

GAO ET AL.

Examiner

John Hoffmann

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 28 March 2005 has been entered.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 and 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to an apparatus – method hybrid; i.e. a machine-process hybrid. This is not statutory matter. A claim can be directed to a process or an apparatus; there is no statutory provision for a combination of the two. Note claim 1, line 4 requires a step of directing air. And the second nozzle is directing fluid as well. Claim 7 has the same. Furthermore, in the remarks of the paper filed March 28, 2005, Applicant indicates the claims include method steps. For example, page 5 states “It

Art Unit: 1731

would not have been obvious to direct air from the nozzles of Reese” and “Nowhere does Reese teach directing air at the filaments.” Since it is applicant’s position that Reese has to disclose directing air, it is deemed that it is Applicant’s position that the claims require a step of directing air.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 and 11-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 7: Examiner could find no support for an “apparatus for cooling filaments in a filament forming process” which has a bushing and a gathering shoe. Whereas there is disclosure for using the apparatus in conjunction with a bushing and a shoe, there is no support for the apparatus having the bushing and the shoe.

Furthermore, there does not appear to be support for the second nozzle directing a fluid at the filaments down stream of the air directed by the first nozzle. Whereas there might be inherent support for the limitation, such is not pointed out. Most importantly, it is noted that Applicant argues that Nichols does not have this limitation.

Art Unit: 1731

Examiner cannot discern how such could necessarily be inherent in Applicant's invention, but not in Nichols. See further discussion elsewhere in this action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 -7 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The method steps make the claim indefinite, specifically the directing steps. It is unclear if such are meant to be intended use limitations, "capable of" type limitations, or things that are inherently necessary. As indicated above, applicant argues that the prior art does not have directing of air – this suggests that a directing step is required. However, it is well understood that apparatus and method steps are two different things.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Reese

4141709.

Figure 1 shows all of the claimed structures. It is noted that this rejection is under the assumption that the claims do not require a step of directing air. Rather, that the claims merely require the nozzle be capable of directing air. It is deemed that any structure that can conduct liquid through it (such as the Reese liquid) can substantially conduct any other fluid through it – including air.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-7, 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols 4033742 in view of Flautt 5055119.

Nichols discloses the invention, but makes no mention of a gathering shoe. Figure 4 of Nichols shows the invention of bushing 14, the two different nozzles 16 and 16' where they are both downstream of the bushing and 16' (the second nozzle) being down stream of the other nozzle. Nichols indicates that the fibers are wound on collet 19 – but doesn't go into any detail. The gathering of fibers onto a collet by using a gathering shoe is conventional practice. See Flautt, col. 3 , lines 53-68. It would have been obvious to use a gathering shoe to gather the fibers onto the Nichols collet, because such is a conventional way of producing glass fibers.

As to the new limitation regarding the second fluid being directed downstream of said air directed. It is clear that at least some of the second fluid is directed to a location that is downstream of at least some other of the air that is directed by the first nozzle. It is deemed that the broadest reasonable interpretation of the newly added limitation is such that the claim is comprising in nature and is open to the second nozzle also directing some fluid that is not down stream of the first directed air.

Claim 2 is clearly met.

Claims 3-4: The fluid used in the structure is an intended use limitation. One could force water through the Nichols nozzles if one so chooses. This is not to be interpreted as an indication that it would be obvious to do so. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim 6: see Nichols, col. 8, lines 58-59.

Claims 7, and 11 are clearly met for substantially the same reasons given above.

Claim 12: See col. 6, lines 18-19 of Nichols.

Claim 13 is clearly met.

Claim 14: see col. 10, lines 55-56.

Art Unit: 1731

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reese in view of Haruch 6161778.

Reese discloses the invention, except for the fluid being a mixture and the air-atomizing nozzle. Haruch teaches a new and improved nozzle for cooling: col. 1, lines 11- 67. It would have been obvious to use the Haruch nozzle as the Reese nozzle for all the superior properties of the Haruch nozzle.

### ***Response to Arguments***

Applicant's arguments filed 28 March 2005 have been fully considered but they are not persuasive.

It is argued that Reese does not teach directing air at the filaments, nor would such be obvious. The relevance of this is not explained nor understood. The claims are directed to apparatus, not methods. Thus Reese need not disclose any method steps. Applicant has not explain why such a teaching/modification is needed for the Office's rejection to be proper/complete. Nor has applicant shown anything or suggested Reese's apparatus could not direct any fluid besides the cooling liquid. As far as Examiner can tell most definitions for "nozzle" is along the lines of a vent or a tube. It is deemed that any tube or vent can equally conduct liquid or gas.

It is argued that Nichols opposing relationship does not permit air to be directed at filaments downstream as claimed. If this is true, applicant should point out why this is true. Whereas examiner sees that there are some areas that are not downstream, there are other areas that are downstream. See rejection.



Art Unit: 1731

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. Hyatt, 211 F.3d at 1372. The "broadest reasonable interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." Burlington Indus. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule "serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

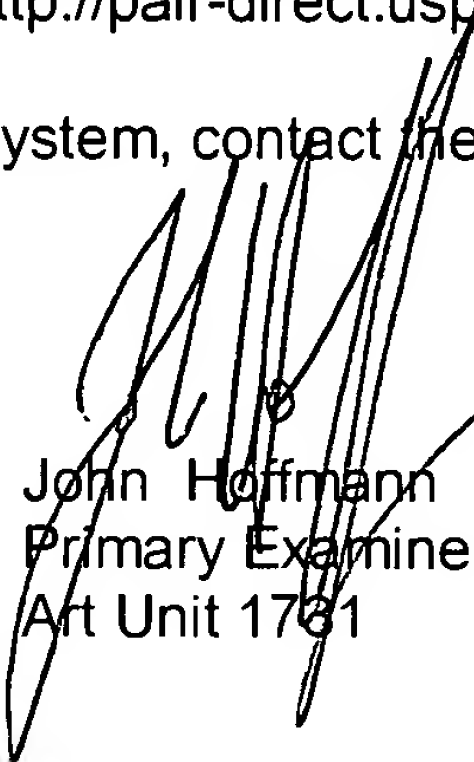
In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272-1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Hoffmann  
Primary Examiner  
Art Unit 1731

4-17-05

jmh